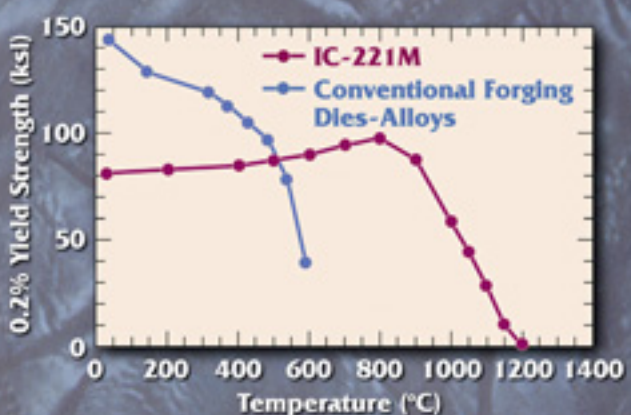
Ni_3Al Enables Improvement in Forging Dies

- **Longer Life - demonstrated 10X improvement under production conditions**

Cast Ni_3Al Die

- **Process Improvement**
  - **more efficient;**
  - **less down time**
- **Product Quality Improvement - better dimensional tolerance**
- **Dies Commercially Available - through licensing of Oak Ridge National Laboratory (ORNL) developed technology**



Superior Ni_3Al Strength Compared to Convention Forging Dies - Alloys

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Ni_3Al Enables Improvment in Forging Dies

Forging dies of cast nickel-aluminide alloy IC-221M have been used to successfully forge 100,000 pieces of a part known as a "brake spider." This is a factor of ten improvements over the commercially used die material.

For more information, please contact:

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